Clear Choices:
Storm Water Solutions for Montana
April 7th-9th, 2009 ~ Bozeman, Montana

Session Descriptions

Tuesday, April 7th, 2009

10:15-10:45 AM

Plenary Speaker: Tom Schueler – Director of Chesapeake Storm Water Network
Title: The Road Ahead: Urban Runoff Perspectives for Montana
Description: Why should the public care about urban storm water in such a lightly developed state? Tom will review research that shows that even a modest amount of land development can have major impacts on the stream quality, and particularly trout populations in the state. Tom will review the implications of this research on watershed management and storm water design in Montana. The main management response is to implement runoff reduction practices to mimic natural hydrology at new development sites. Tom will show how these small scale infiltration, rainwater harvesting and soil filtering practices are combined together in a sequence from the roof to the stream, and comment on how these practices can be adapted to meet Montana's unique climate, terrain and aquatic resource objectives.

10:45 AM to 12:15 PM

General Session: Panel Presentation 'Storm Water Strategies'
Panelists: Greg Davis -EPA Region 8, Eugene Graf – Bozeman Real Estate Developer, Jim Wilbur – L&C WQD, Susie Turner – City of Kalispell Public Works, Facilitator – Tom Pick - NRCS
Description: Panelists convey their personal experience and thoughts on storm water strategies. 'Strategies' can mean policy (voluntary, regulatory, incentives, combination thereof), planning and assessment activity, or practical general tactics to deal with storm water runoff (prevention, treatment, detention, etc).

Questions for panelists:
1. How did your organization become involved in storm water management?
2. What does 'storm water strategy' mean to you and what role does your organization play in storm water strategy development?
3. Describe and discuss what storm water strategies your organization has employed and why? Please address any activities from policy development to inventory and planning to implementation.
4. Please provide some indication of the publics' response or reaction and identify any successes and challenges that have occurred as a result.
5. Recommendations for future storm water strategy considerations in Montana.

1:30- 3:30 PM

Break Out Session 1: Panel Discussion of 'Storm Water MS4 Information Sharing on Six Minimum Measures'
Panelists: Amanda McInnis – HDR, Brian Heckenberger – MT DEQ Water Protection Bureau, Greg Davis – EPA Region 8, Facilitator – Mark Kelley – MT DEQ Water Quality Planning Bureau
Description: Panelist and session participants describe examples, discuss issues, and explore strategies pertaining to the development, implementation, and enforcement of Storm Water Management Programs (SWMPs) for Small Municipal Separate Storm Sewer Systems (MS4s) around the six elements for MS4 facility permits. These six elements are 'best management practices' for education, public involvement, discharge detection, construction runoff, long-term runoff management, and runoff pollution prevention. These practices can include local policies, planning activities, and practical storm water prevention, treatment and detention applications. MS4s are part of an overall effort to improve storm water management and water quality in the receiving waters, and may include efforts from not only the formal permittees, but other local planning, water, and conservation groups. During this panel discussion, attendees are encouraged to share their experiences and insights.

1:30- 3:30 PM

Break Out Session 2: Planning for Storm Water - Planning tools, design and education programs
Presenter: Cynthia Peterson, AWARE Colorado
Description: Impervious surfaces, such as roads, parking lots and rooftops, prevent soil from absorbing rain and snowmelt. This, in turn, leads to rapid runoff events, degraded water quality and damaged waterways. This presentation will outline the impacts of land use on storm water flows, water quality and receiving waterways. It will identify a variety of water protective tools communities can adopt to protect water resources. It will also discuss innovative approaches to educate stakeholders and promote sustainable storm water management.

Presenter: Eirik Heikes, FOURFRONT Design Inc.
Title: Planning for Storm Water - The role of Landscape Architecture and design for site and neighborhood planning for storm water management.
Description: As part of a Landscape Architect's tool bag, planning for Storm Water is a dynamic process that is undergoing constant change. This is largely in response to the US Green Building Council's LEED Credits for Sustainable Sites and other regionally adopted protocols. "We were green before green was the standard", is a tongue-in-cheek comment made by many Landscape Architects to describe the green swales, created wetlands, and basins of various types that are used frequently in site planning. However, there is absolutely no reason these elements need to be unsightly or removed from public use.

3:45- 5:15 PM

Break Out Session 3: Sediment and Erosion Control
Presenter: Stuart Jennings – Reclamation Research Group
Title: Site Planning and BMPs before and during construction

3:45- 5:15 PM

Break Out Session 4: Planning for Storm Water
Presenter: Tammy Crone – Gallatin Local Water Quality District
Title: A New Approach to Protecting Water Quality in Gallatin County through Better Site Design
Description: The Greater Gallatin Watershed Council (GGWC) realizes that with a rapidly urbanizing area like the Gallatin Valley, can come negative impacts to water quality and overall stream health as a result of increased storm water runoff. In an effort to stimulate the discussion on ways to mitigate these

negative impacts, GGWC formed a Storm Water Work Group to discuss, collaborate and research low impact development (LID) tools for managing storm water runoff on-site. The goal of the Storm Water Work Group was to create guidelines, not regulations, that can be incorporated into local planning, zoning and development plans that would meet the needs of our cold weather climate, while allowing development to continue and reduce impacts to our valuable water resources.

Presenter: **Brian Remlinger - Intermountain Aquatics, Inc.**
Title: Urban Storm Water Treatment Wetland – Planning, Design, Funding
Description: Flat Creek in the Town of Jackson, Wyoming is included on DEQ's impaired waters (303(d)) list. Sediment from winter road traction sand is the primary pollutant of concern in storm water runoff. A locally led watershed planning effort identified BMPs to reduce sediment loading to the creek. A key BMP from the watershed plan, a relatively large storm water treatment wetland, is being constructed by a diverse group of stakeholders. The goals of the treatment wetland project are to significantly improve the physical and chemical quality of urban runoff, enhance habitat quality and maintain a naturalistic, aesthetically attractive appearance. This presentation provides details on land acquisition, feasibility, preliminary technical design and successful funding sources for the urban storm water treatment wetland.

Presenter: Bob Zimmer – OASIS Environmental Inc.

6:00- 7:30 PM

Dinner Program: Stormwater Education and Outreach
Presenter: Cynthia Peterson– AWARE - Colorado
Description: Water-protective land use approaches, such as low impact development (LID), have multiple benefits to communities. These include reduced storm water runoff volumes, enhanced groundwater recharge, reduced pollutant loads and additional open space. Yet, for a variety of reasons, these strategies have not been widely embraced. This presentation will discuss recent research conducted to better understand the barriers faced by key stakeholder groups to the implementation of low impact development parking lot strategies in their communities. It will outline the barriers and benefits of LID approaches identified by research participants and discuss possible methods to reduce barriers and encourage LID techniques in local communities.

Wednesday, April 8th, 2009

9:00-10:30 AM

Break Out Session 5: Overview of Montana's Storm Water Regulatory Program
Presenter: Brian Heckenberger, MT DEQ - Water Protection Bureau
Title: Overview of Montana's Storm Water Regulatory Program
Description: Certain facilities or activities are required under Federal and Montana law to have storm water discharges regulated. The purpose is to help protect the quality of receiving surface waters through various permits and associated requirements. This presentation will provide a summary of these requirements in Montana as administered through the DEQ. Over the past twenty years, these permit requirements have increasingly served as a foundation to help various municipalities, industries, mines, and construction projects address potential water quality issues related to storm water runoff.

Presenter: Barb Kingery, MT DEQ – Public Water and Subdivisions Bureau
Title: Subdivisions and Storm Water
Description: Presentation will review Administrative Rules of Montana and the standards and technical procedures applicable to storm drainage plans and related designs, in order to ensure proper drainage ways.

Presenter: Susie Turner, City of Kalispell Public Works
Title: Kalispell Storm Water Management Program
Description: Permittee of the General Permit for Storm Water Discharge Associated with Small Municipal Separate Storm Sewer System (MS4). Will review Kalispell Storm Water Management Program including: Public Education Outreach on Storm Water Impacts, Public Involvement/Participation, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Post-Construction Storm Water Management in New/Re- Development, and Pollution Prevention/Good Housekeeping for Municipal Operations.

9:00-10:30 AM

Break Out Session 6: Watershed Assessments of Storm Water at the state level
Presenter: Tom Schueler – Chesapeake Storm water Network
Title: Assessing Storm water Impacts at the Watershed Level
Description: Presentation will examine trends in local watershed plans, tracking storm water pollutant loads in watershed plans and TMDLs, watershed treatment model (WTM), and watershed based storm water permitting.

Presenter: Dean Yashan – MT DEQ - Water Quality Planning Bureau
Title: Storm water and Total Maximum Daily Load (TMDL) development in Montana
Description: Presentation will cover the TMDL process and how it addresses and determines the effects of pollutants transported to surface waters via storm water runoff in developed areas. Past, current, and future TMDL development in areas with storm water concerns will be discussed, in addition to examples of TMDL implementation and restoration strategies.

10:45AM -12:15 PM

Break Out Session 7: Sediment and Erosion Control – post construction, maintenance and opportunities
Presenter: Greg Davis – EPA R8
Title: Implementing Post-Construction Storm Water Controls
Description: Presentation examines leading pollutants in storm water runoff, runoff conditions, components of storm water ordinances, post construction BMPs, and BMP maintenance.

10:45AM -12:15 PM

Break Out Session 8: Managing Storm Water
Presenter: Tom Schueler - Chesapeake Storm Water Network
Title: Special Montana Storm Water Topics
Description: This session explores some important topics to adapt storm water practices for the unique terrain, climate and resource objectives in Montana. The session starts by reviewing how the demanding cold climate conditions found in Montana influence how storm water practices are designed, using examples from other states. Next, the specific problems associated with winter construction are described, along with recommended practices used to prevent spring sediment discharges in other states. Since trout waters are present in much of the state, effective techniques are presented to protect this important economic resource from the impacts of land development, through special storm water, buffer and wetland protection criteria. The session concludes with methods to restore damaged urban streams by systematically assessing storm water retrofit and restoration opportunities from the stream back up to the roof.

1:30- 3:00 PM

General Session: Managing Storm Water
Presenter: Tom Schueler **-** Chesapeake Storm Water Network
Title: Review of Runoff Reduction Practices
Description: This session presents the basic concept of runoff reduction as a means to integrate recharge, water quality and channel protection at individual development sites. The basic science on runoff reduction will be defined, and the majority of the session will review new design specifications developed for runoff reduction practices, including rain tanks, soil compost amendments, small-scale infiltration, permeable pavers, bioretention, dry swales and linear wetlands. The new design approaches for these practices seeks to maximize their hydrologic and pollutant removal function, while addressing maintenance, cost and amenity issues.

3:15- 4:45 PM

General Session: Funding Resources for Storm Water Management in Montana
Presenters: Rob Rung – MT DEQ, Paul LaVigne – MT DEQ, and Bob Fischer – MT DNRC
Description: Join three agency professionals for a discussion on funding opportunities offered by their programs. Rob Rung will offer a summary of the Clean Water Act 319 Grant program, which supports a wide variety of activities including nonregulatory or regulatory programs for enforcement, technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of specific NPS implementation projects. Bob Fischer will provide an overview of the Renewable Resource Grant and Loan Program including funding limits and the application process. Paul LaVigne will discuss low-interest loans for storm water improvements. The panel will also discuss how their agencies interact with other programs and how they have worked in partnership on various projects.

Thursday, April 9th , 2009

8:30 AM -1:00 PM **Optional Trip: Bozeman Stormwater Tour – Positive Outcomes and Lessons Learned**
Visit commercial and residential developments in various stages of construction and learn why we should be concerned about stormwater impacts on local water resources. Participate in discussions about stormwater management dilemmas and solutions as we visit these sites with speakers from the City of Bozeman, Gallatin County Planning Department, Montana Fish, Wildlife & Parks, and several local businesses. Lunch is provided. ***Cost – $30 per person***

8:30 AM – 4:00 PM **Optional Training: Storm Water Management During Construction ~ Montana ~ Scott Olson, Altitude Training Associates**
This course was developed for storm water management during construction training and the Montana General Permit for Storm Water Discharges Associated with Construction Activity. This program covers:

- The Storm Water Program legal requirements including permitting and Storm Water Pollution Prevention Plans (SWPPP)
- Erosion and Sedimentation at construction sites.
- Types of Best Management Practices (BMPs) for specific applications to control erosion and sedimentation.
- Installing construction site BMPs
- Inspecting and maintaining construction site BMPs

Cost - $75 per person